

WHAT IS CLAIMED IS:

1. A method for detecting damaged parts, comprising the steps of:

5 (a) measuring a position of a transmitter by processing a transmitter signal received by a plurality of receivers, the transmitter being attached at a predetermined point of a vehicle;

10 (b) calculating displacement of the transmitter by comparing the measured position with a reference position of the transmitter, the reference position being a position at which the transmitter is supposed to be when the vehicle is in normal state; and

15 (c) identifying damaged parts around the transmitter, based on the displacement of the transmitter.

2. The method according to claim 1, wherein said measuring step (a) determines the position of the transmitter based on reception times of the transmitter
20 signal at the plurality of receivers.

3. The method according to claim 1, wherein said identifying step (c) identifies the damaged components, consulting a database that stores
25 predetermined influence ranges associated with different amounts of displacement and lists of components that fall within each of the influence ranges.

4. The method according to claim 1, wherein the transmitter signal delivers an identification code of the transmitter.

5. The method according to claim 1, wherein the transmitter signal passes through outer parts of the vehicle.

6. The method according to claim 5, wherein the transmitter produces electromagnetic waves as the transmitter signal.

7. The method according to claim 1, further comprising the step of correcting the measured position of the transmitter to cancel a position offset of the vehicle.

8. The method according to claim 1, further comprising the steps of:

searching a database for part numbers of spare parts that are required for replacement of the damaged parts; and

sending ordering information for the spare parts to a parts order server over a network.

9. A device for detecting damaged parts, comprising:

a plurality of receivers that receives a transmitter signal sent from a transmitter attached at a predetermined point of a vehicle;

5 a transmitter locator that measures a position of the transmitter by processing the transmitter signal received by the receivers;

a displacement calculator that calculates displacement of the transmitter by comparing the measured position with a reference position of the transmitter, the
10 reference position being a position at which the transmitter is supposed to be when the vehicle is in normal state; and

a damaged part detector that identifies damaged parts around the transmitter, based on the displacement of
15 the transmitter.

10. A program product for detecting damaged parts, the program product causing a computer system to execute a process comprising the steps of:

20 (a) measuring a position of a transmitter by processing a transmitter signal received by a plurality of receivers, the transmitter being attached at a predetermined point of a vehicle;

(b) calculating displacement of the
25 transmitter by comparing the measured position with a reference position of the transmitter, the reference position being a position at which the transmitter is

supposed to be when the vehicle is in normal state; and

(c) identifying damaged parts around the transmitter, based on the displacement of the transmitter.

5 11. A computer-readable storage medium that stores a program for detecting damaged parts, the program causing a computer system to execute a process comprising the steps of:

10 (a) measuring a position of a transmitter by processing a transmitter signal received by a plurality of receivers, the transmitter being attached at a predetermined point of a vehicle;

15 (b) calculating displacement of the transmitter by comparing the measured position with a reference position of the transmitter, the reference position being a position at which the transmitter is supposed to be when the vehicle is in normal state; and

 (c) identifying damaged parts around the transmitter, based on the displacement of the transmitter.

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